6th Grade Core Career Connection

Title: The Language of Music
Core Subject: Music, Math

Standards: Music 1560-03 The students will create music through improvising, arranging, and composing. Math 5060-06 The students will demonstrate an understanding and be able to apply a variety of uses for number systems and number theory in the real world.

Objectives: Music 1560-0301 Create original music and add expression and style to existing music. Music 1560-0303 Use the staff system to document music. 5060-6001 Understand and appreciate the need for numbers beyond the whole numbers. Math 5060-0603 Extend their understanding of whole number operations to fractions, decimals, integers, and rational numbers.

Abstract/Objective:

Students will work with a composer to learn the skills necessary for them to create a short melody, and record the melody on paper using standard musical notation.

Occupational Connection: Composer

Recommended Materials/Resources:

1. Staff paper for each student plus some extras.
2. Musical instruments (a piano, keyboard xylophone or similar instrument is a must). You can also download a program, very small and free, called Aldo's Pianito, a program you can use to play the piano on a computer from http://www.downloadplanet.net/files/Freeware/Games/Educational/index.html)
3. Overhead projector
4. Staff paper transparency
5. Rhythm and pitch worksheets (included).

Time Allotted: Four one-hour class periods

Teacher Role:

1. Acquire materials
2. Contact Composer and discuss with him/her what the requirements of the lesson, what will be covered, and what the students should already know.
3. Initial rhythm and composing experience.
4. Make copies of worksheets
5. Evaluate worksheets
6. Aid students in creating their songs.

Activity:

1. Clap rhythm patterns and have your class copy you. Use whole, half, quarter and eight notes. Be sure to count as you clap.
2. Have your class help you devise a 15-second melody. If possible, the "song" should be in 4/4 time(this should be easy, it always seems to be the natural rhythm we select). The notes need to be sung or played on the piano only, but stress that the melody needs to be memorized for the next day when your composer comes (The song will probably not be remember very well but, that is part of the lesson).
3. The next day when the composer is in your classroom, try to perform the song. If it works, GREAT, but probably most, if not all, will have forgotten the melody.
4. The composer can then lead a discussion on the need for a musical notation. He/she should relate that written music is a sort of code that just describes at what pitch to play the note, and the duration of the note. He/she should also stress that this written form of music is used throughout the world. Have them try to get the students to tell what they know about musical notation. Then have the composer talk about what he/she knows about music.
5. The composer can then play the piece that he/she has prepared. Make sure they read the music, even if they have it memorized. This will reinforce the need for musical notation. If possible, copy the piece being played for the overhead. That way, the students can follow the performance and see the connection between the written and performed music. Point to the notes that are being played. This musical notation is the same throughout the world, so if you know it here, you know it there.
6. Use the provided worksheets “Understanding Musical Notation: Rhythm” to discuss rhythm, or use your own method.
7. Write the notes that fit the song previously improvised on a staff on the overhead. Use a piano or keyboard to discover the pitch for each of the notes, and use previous knowledge of rhythm and note duration to write the music.
8. Lead the students in a pitch exercise or use the attached worksheets “Understanding Musical Notation: Pitch”. These exercises should be connecting the “code” of music to the sound of music. They should fill out the grand staff with all notes, and the keyboard for reference. Sharps and flats are not necessary in the key of C, but some students may want to use them. Mention the black keys, but do not discuss them in depth at this point unless a student want to use them, and then provide them with help individually.
9. Help students write the music for the first line of Mary Had a Little Lamb on the second grand staff. Be sure to let them decide the note name and duration values with your help on the keyboard. The students should be writing their own music with the help of the class and either the composer or the teacher. If you have some brave students, you could play some of the pieces the students wrote to see if they need any corrections.

10. Students will create their own six to ten measure song. Students will need access to a keyboard of some kind, either a piano, keyboard, or a computer keyboard program like the one listed in the materials list. Remind students the music is just like a code, all the note does is tell the musician what pitch and how long to hold it.

Work-Based Learning, Community Connection:

A local composer or musician from a performing group, symphony, or university. Your Work Based Learning coordinator can help you establish a community connection.

Community Partner Role:

1. Show the relationship between musical notation and the performed music by performing a piece from written music.
2. Help the class put their song on paper.
3. Lead the students through the worksheets, or provide a similar experience.

Suggested Assessment:

The students will have completed a six to ten measure song. If all the pitches are placed correctly, and each measure is complete, consider it a success. If it sounds good as well BONUS!!!!!! You will be surprised how many are actually pleasing to the ear.

Understand Musical Notation: Rhythm

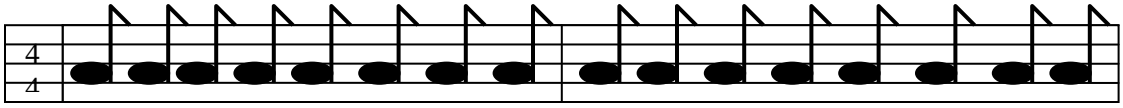
Name _____

When writing music, it is very important to tell the musician performing the music how long to hold a particular note. This is writing in the music as the number of beats to give a certain note. The following table shows how many beats a note gets in 4/4 time, that is in music written with four beats in a measure, and a quarter note counting as one beat. This chart works for music in 4/4 time only.

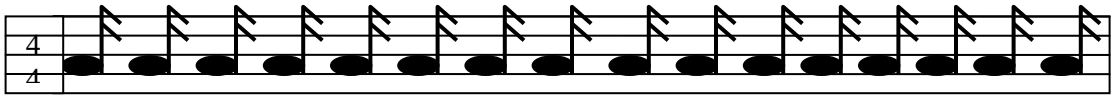
Note Values		Time Signature 4/4	
Symbol	Name	Fraction of measure	Beats per note
𝅝	Whole	Whole Measure	Four Beats
𝅗𝅥	Half	1/2 of Measure	Two Beats
♩	Quarter	1/4 of Measure	One Beat
♪	Eighth	1/8 of Measure	Half a Beat
𝅘𝅥𝅯	Sixteenth	1/16 of Measure	Fourth a Beat

The following stanza of music shows each of the notes, and how much of a four beat measure they take up:

- A Whole note gets four beats and takes up one whole measure in 4/4 time.
- A half note gets two beats and it takes two half notes to make a whole measure in 4/4 time.
- A quarter note gets one beat and it takes four quarter notes to make a whole measure in 4/4 time.

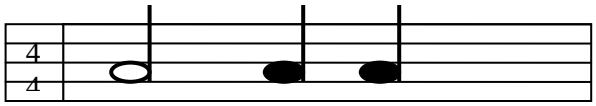


- An eighth note gets half a beat and it takes eight eighth notes to make a whole measure in 4/4 time.

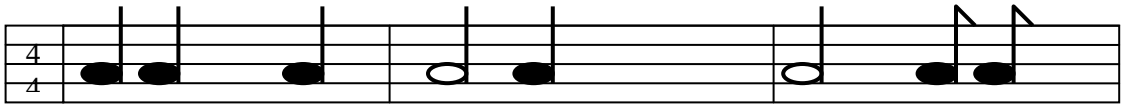


- A sixteenth not gets on fourth of a beat and it takes 16 sixteenth notes to make a whole measure in 4/4 time.

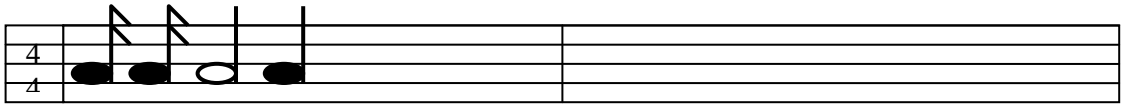
Notes can also be mixed in a measure. For instance since 1/2 + 1/4 + 1/4 = 1, the following three notes make a complete measure.



Directions: In the following measures of music, indicate the missing fraction that makes the number sentence true, and place the proper note in the measure to complete it.

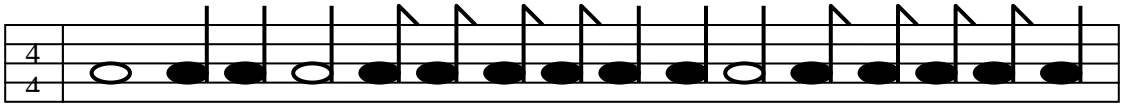


1. 1/4 + 1/4 +___+1/4 = 1 **2.** 1/2 + 1/4 +___= 1 **3.** 1/2 +___+1/8 + 1/8 = 1

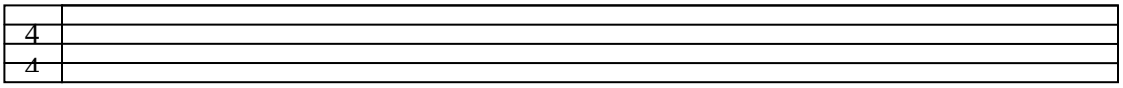


4. 1/16 + 1/16 + 1/2 + 1/4 + ____ = 1 **5.** What single note will fill this measure?

6. On the following staff, draw the measure bars to separate the notes in to 4/4 measures.



7. On the following staff, make your own pattern of notes in 4/4 time. Use at least two, but not more than four measures. Be sure to use several different notes.



8. How many quarter notes does it take to make a complete measure in 4/4 time?_____

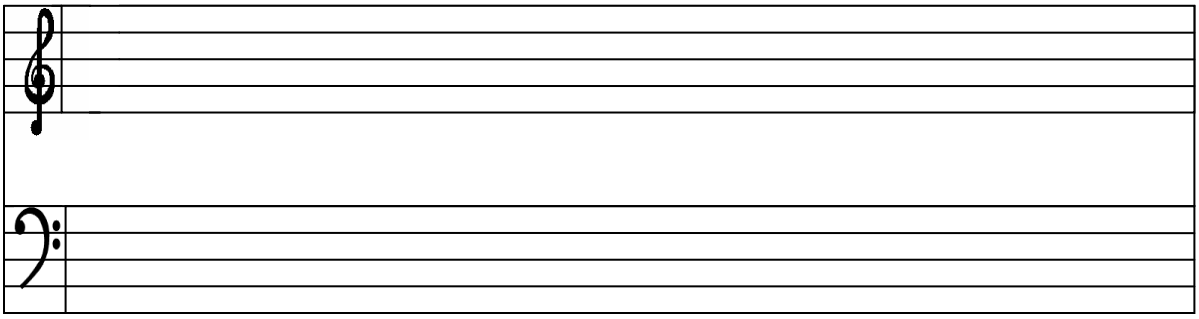
9. How many whole notes does it take to make a complete measure in 4/4 time? _____

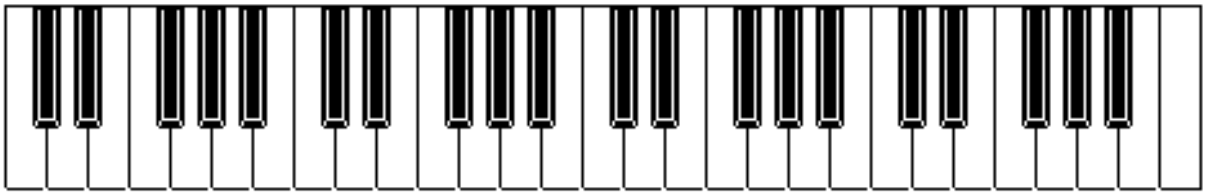
10. How many eighth notes does it take to make a complete measure in 4/4 time? _____

Understanding Musical Notation: Pitch

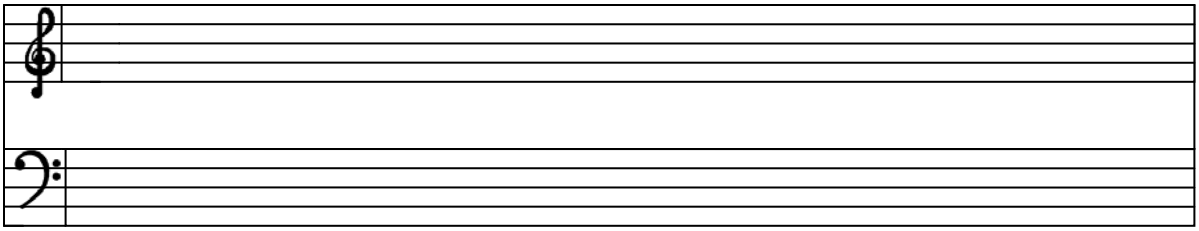
Name_____

Directions: Following the instructor, place the note names on the Grand Staff and on the keyboard. You can use this for reference when writing music of your own for your final project.





Use the following grand staff to record the notes for "Mary Had a Little Lamb.



Student Composition

Name _____